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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/303,718	04/30/1999	RAMAN ARUNACHALAM	ARUNACHALAM1	8754

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EXAMINER	
NGUYEN, HANH N	

ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/303,718	ARUNACHALAM ET AL.	
	Examiner	Art Unit	
	Hanh Nguyen	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Response filed on 7/16/07*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 5, 6, 9, 11 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1 and 11, lines 7 and 10, what is meant by " generating a corresponding header packet for said arrived packet" ?. The claimed "corresponding header packet" is not clearly described in the claim. Further, on line 14, is " header packet containing said packet forwarding information" referred to " said header packet" on line 12 and " a packet containing header" on line 4 ? Applicant is reminded of a lack of antecedent basis.

In claims 5 and 13, it is not clear what is meant by "said created header packet".

In claim 6, there is a lack of antecedent basis for "said packet record" on line 3.

In claim 9, it is not clear what is meant by " said data information is stored as successive pages in said predetermined memory location".

Claim Objections

Claim 8 is objected to because of the following informalities: " a high speed buffer memory buffer memory" is redundant and is suggested to be amended as "" a high speed buffer memory". Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-8, 10-16 as best understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Haddock et al. (US pat. 6,104,700).

*Referring to claims 1, 2, 11, 13, Haddock et al. discloses a high speed router for routing packets of information through an interconnected network (see fig.1A, col.4, lines 10-48; switch 100 for routing packets through filter/switch/forwarding manager 115 between input ports 105 and output ports 110) comprising an interface means for receiving a packet containing header and data information (see fig.1B, col.6, lines 27-30 and fig.2, step 220; input ports receiving data streams); means for extracting routing information from the header of the arrival packet and generating a corresponding header packet for said arrival packet (see fig.1B, col.6, lines 28-40; and fig.2, step 230, packet classification 150 and comparision engine 155 determining which of the traffic groups a packet in the data streams is associated by comparing traffic group indications with information in the header of the received packet), memory means for storing said data information at predetermined memeory locations (see fig.1B, col.6, lines 55 to col.7, line 20 and fig.2, step 250; col.9, lines 30-60; buffer manager 165 stores packet in QOS queues 180 in according with identified traffic groups), means for processing the corresponding header packet to determine a route for said arrival packet (see col.4, lines 35-45, switch 100 performs a search on the forwarding database using address information in the header of the received packet

to forward the received packet via an output port) and Assigning packet forwarding information to the header packet (see col.8, lines 40-55; assigning high priority to video traffic, while second priority to Vlan traffic); and means for retrieving data from the predetermined memory locations (see fig.1B; col.7, lines 47-55, and fig.2, step 260; col.9, lines 57-65; dequeue 162 retrieves a packet from a specific QOS queue) and forwarding said data and header packets containing said packet forwarding information to said interface means (removing the packet at the front of the selected Qos queue for transmitting through the output port ; see col.9, lines 57-65) for routing the packet to a further destination in accordance with said packet forwarding information (see col.4, lines 35-45 addressed above).

*In claim 16, with the disclose addressed above in claims 1 and 11, Haddock et al. further discloses assigning resources for the arrived packet (see col.8, lines 40-50; video traffic is assigned a minimum bandwidth of 5 Mbps, while engineering traffic group or Vlan traffic is assigned a minimum bandwidth of 30 Mbps); means for queuing and scheduling transmission the outgoing packet based on the QOS requirement (see fig.1B, col.7, lines 15-20 and lines 38-55; enqueue 161 adds arrived packet into Qos queues 180 which is retrieved by dequeue 162 for output. The packet retrieval for output is controlled by scheduler 170).

*In claim 3, Haddock et al. discloses the scheduler implements a weighted fair-queuing scheme (col.12, lines 10-35 and lines 60 to col.13, line 4; queuing scheme shown in table 2 implements a weighted fair queuing which assures a minimum bandwidth greater than zero to the Qos queue corresponding to a particular traffic type A).

*Referring to claim 5, Haddock et al. discloses route look-up table determining which destination the arrival packet is forwarded (see fig.1A, see col.4, li8nes 40-50; forwarding data

table 120 determines which output port to forward the arrived packet by searching address information in the header).

*In claim 8, Haddock et al. discloses a high speed buffer memory (see col.4, 20-35 packet bufferring at RAM 125 is achieved via Gigarbit ethernet port).

*In claims 6 and 14, Haddock et al. discloses assigning a specific flow to said arrived packet (see col.8, lines 40-50, UDP session is identified video traffic).

In claim 7, Haddock et al. discloses flow identification means (see fig.1B; col.6, lines 30-40; packet classification 150 look at header in the received packet to identify to which traffic group the arrived packet belongs to) forward the packet header containing the packet forwarding information to said interface means for forwarding (addressed in claim 1).

In claims 10 and 15, Haddock et al. discloses a pipe-lined fashion method (see claim 1).

In claims 4 and 12, as explained in the specification, page 30, lines 1-12, "determining propriety packet" means " determining a class of packet". Haddock et al. is relied to disclose filter means (see fig.1A,col.4, lines 25-35; address filter 115) for determining propriety of said packet to be routed based on one or more source address, destination address, and other routing parameters (providing traffic classification, forwarding packet based on address lookup in the forwarding database; see col.4, lines 25-45). The packet forwarding is based on various parameters (see col.8, lines 40-55).

Response to Arguments

Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Partridge et al. (US pat. 6,160,811).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hanh Nguyen whose telephone number is 571 272 3092. The examiner can normally be reached on Monday-Thursday from 8:30 to 4:30. The examiner can also be reached on alternate.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild, can be reached on 571272 2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hanh Nguyen

HANH NGUYEN
PRIMARY EXAMINER